



16C3

1624

(5)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT
RECEIVEDApplicant(s): Chappelow, Cecil C., et al.) Attorney Docket No. CUMP.95837
) Art Unit: 1624

JUN 18 2002

Serial No. 10/091,791)

TECH CENTER 1600/2900

Filed: March 5, 2002)

Title: PHOTOPOLYMERIZABLE)
COMPOSITIONS THAT INCLUDE)
ALICYCLIC/AROMATIC DIOXIRANES)
AND NOVEL DIOXIRANYL)
TETRAOXASPIRO [5.5] UNDECANES)CERTIFICATE OF MAILING
37 C.F.R. 1.8

I hereby certify that this correspondence is being deposited with the U.S. Postal Service, postage prepaid, as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on:

6/15/02

Date

J. Dickman

Signature

INFORMATION DISCLOSURE STATEMENTCommissioner for Patents
Washington, D.C. 20231

Dear Sir:

Enclosed herewith and listed on Form PTO-1449 (also enclosed) are photocopies of patents and/or documents which Applicant requests be considered by the Examiner and made of record.

PATENTS

<u>U.S. Patent No.</u>	<u>Issue Date</u>	<u>Inventor(s)</u>
5,556,896	September 17, 1996	Byerley, Thomas J., et al.
5,808,108	September 15, 1998	Chappelow, Cecil C., et al.
6,022,940	February 8, 2000	Byerley, Thomas J., et al.

OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication):

Kostoryz, E. L., P. Y. Tong, C. C. Chappelow, J. D. Eick, A. G. Glaros, and D. M. Yourtee, "In Vitro Toxicity of Spiroorthocarbonate Monomers Designed for Non-Shrinking Restorative," *Journal of Biomaterials Science, Polymer Edition*, 11(2), 187-196 (2000).

Harris, C. D., A. J. Holder, J. D. Eick, and C. C. Chappelow, "AM1 Semiempirical Computational Analysis of the Homopolymerization of Spiroorthocarbonate," *Journal of Molecular Structure (Theochem)*, 507, 265-275 (2000).

Chappelow, C. C., C. S. Pinzino, L. Jeang, C. D. Harris, A. J. Holder, and J. D. Eick, "Photoreactivity of Expanding Monomers and Epoxy-Based Matrix Resin Systems," *Journal of Applied Polymer Science*, 76, 1715-1724, (2000).

Eick, J. D., G. M. Kaufman, C. S. Pinzino, B. Morrison, and C. C. Chappelow, "New Prototype Epoxy-Based Low-Shrinkage/Low-Stress Composites," *Journal of Dental Research*, 79(SI), 148 (2000).

Chappelow, C. C., C. S. Pinzino, G. M. Kaufman, L. Jeang, A. J. Holder, and J. D. Eick, "Photoreactivity of Epoxy-Based Matrix Resins and Composites Containing Expanding Monomers," *Journal of Dental Research*, 79(SI), 148 (2000).

Kostoryz, E. L., P. Y. Tong, C. C. Chappelow, A. G. Glaros, J. D. Eick, and D. M. Yourtee, "Good Biocompatibility Profile of Novel Spiroorthocarbonate Expanding Monomers," *Journal of Dental Research*, 79(SI), 316 (2000).

Holder, A. J., D. A. White, C. D. Harris, C. C. Chappelow, and J. D. Eick, "Computational Energetic and Mechanistic Study of Various Expanding Monomers," *Journal of Dental Research*, 78(SI), 288 (1999).

Chappelow, C. C., C. S. Pinzino, J. D. Oxman, S. S. Chen, and J. D. Eick, "Photopolymerizable Expanding Matrix Resin Systems for Low Stress Composites," *Journal of Dental Research*, 78(SI), 371 (1999).

Pinzino, C. S., C. C. Chappelow, J. D. Oxman, J. A., Morrill, M. D. Power, and J. D. Eick, "Experimental Photocurable Adhesive Formulations Containing Expanding Monomers and Reaction Promoters," *Journal of Dental Research*, 78(SI), 315 (1999).

Harris, C. D., A. J. Holder, C. C. Chappelow, and J. D. Eick, "Homopolymerization of Spiroorthocarbonate: A Computational Study," *Journal of Dental Research*, 77(SI), 154 (1998).

White, D. A., A. J. Holder, C. D. Harris, C. C. Chappelow, and J. D. Eick, "Computational Energetic and Mechanistic Study of Epoxide and Spiroorthocarbonate Polymerization," *Journal of Dental Research*, 77(SI), 154 (1998).

Chappelow, C. C., C. S. Pinzino, L. Jeang, C. D. Harris, a. J. Holder, and J. D. Eick, "Photoreactivity of Expanding Monomers in Dental Matrix Resins," *Journal of Dental Research*, 77(SI-B), 639 (1998).

Chappelow, C. C., C. S. Pinzino, C. D. Harris, A. J. Holder, and J. D. Eick, "Photoreactivity of Substituted 1, 5, 7, 11-Tetraoxaspiro[5.5]undecane/Diepoxide/Polyol Matrix Resin Systems," *Journal of Dental Research*, 77(SI), 154 (1998).

Chappelow, C. C., C. S. Pinzino, M. D. Power, and J. D. Eick, "Photocured Epoxy/SOC Matrix Resin Systems for Dental Composites," *Polymer Preprints*, 38(2), 90 (1997).

Kostoryz, E. L., P. Y. Tong, R. R. Williams, J. D. Eick, C. C. Chappelow, and D. M. Yourtee, "Reduced Cytotoxicity of New Dental Resins Containing Spiroorthocarbonate/Epoxy Copolymers," *Journal of Dental Research*, 76(SI), 321 (1997).

Pinzino, C. S., C. C. Chappelow, M. D. Power, and J. D. Eick, "Visible Light Induced Polymerization Studies of SOCs and Monofunctional Epoxides," *Journal of Dental Research*, 76(SI), 41 (1997).

Chappelow, C. C., C. S. Pinzino, M. D. Power and J. D. Eick, "Photopolymerization of Epoxy/Polyol Mixtures Containing spiroorthocarbonates," *Journal of Dental Research*, 76(SI), 40 (1997).

Rose, L. A., P. Y. Tong, J. D. Eick, C. C. Chappelow, and D. M. Yourtee, "A Study of the Mutagenicity of Non-shrinking Spiroorthocarbonate Co-polymers," *Journal of Dental Research*, 75(SI), 329 (1996).

Murphy, J., R. P. Chappell, J. D. Eick, and C. C. Chappelow, "Effect of Spiroorthocarbonate Addition on Polymerization Shrinkage of Acrylate Systems," *Journal of Dental Research*, 74(SI), 182 (1995).

Chappelow, C. C., C. S. Pinzino, J. M. DeHaan, F. Millich, and J. D. Eick, "Synthesis and Photopolymerization of Substituted 1, 5, 7, 11-Tetraoxaspiro[5.5]undecanes," *Journal of Dental Research*, 74(SI), 492 (1995).

Eick, J. D., T. J. Byerley, R. P. Chappell, G. P. Chen, C. Q. Bowles, and C. C. Chappelow, "Properties of Expanding SOC/Epoxy copolymers for Dental Use," *Dental Materials*, 9, 123-127 (1993).

Byerley, T. J., J. D. Eick, G. P. Chen, C. C. Chappelow, and F. Millich, "Synthesis and Polymerization of New Expanding Dental Monomers," *Dental Materials*, 8, 345-350 (1992).

Chappelow, C. C., C. S. Pinzino, L. Jeang, C. D. Harris, A. J. Holder, and J. D. Eick, "Photoreactivity of Expanding Monomers and Epoxy-Based Matrix Resin Systems," *Journal of Applied Polymer Science*, 76, 1715-1724 (2000).

Holder, A. J., D. A. White, C. D. Harris, J. D. Eick, and C. C. Chappelow, "A Semiempirical Quantum Mechanical Study of the Cationic Homopolymerization of Expanding and Potentially Expanding Monomer Systems," *Journal of Molecular Structure (Theochem)*, 541, 159-169 (2001).

Respectfully submitted,



Jean M. Dickman
Reg. No. 48,538

JMD/nlh

SHOOK, HARDY & BACON L.L.P.
One Kansas City Place
1200 Main Street
Kansas City, Missouri 64105-2118
816/474-6550

Attorney Docket No. CUMP.95837
Application No. 10/091,791

PTO-1449 (Modif d) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Attorney Docket No.: CUMP.95837	Serial Number: 10/091,791	RECEIVED
		Applicant: Chappelow, Cecil C., et al.		JUN 18 2002
		Filing Date: March 5, 2002	Group: 1624	TECH CENTER 1600/2900

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	PATENT NUMBER	ISSUE DATE	INVENTOR	CLASS	SUBCLASS	FILING DATE
	5,556,896	September 17, 1996	Byerley, Thomas J., et al.			
	5,808,108	September 15, 1998	Chappelow, Cecil C., et al.			
	6,022,940	February 8, 2000	Byerley, Thomas J., et al.			

FOREIGN PATENT OR PUBLISHED FOREIGN PATENT APPLICATION

EXAMINER INITIAL	DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY OR PATENT OFFICE	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication)

Kostoryz, E. L., P. Y. Tong, C. C. Chappelow, J. D. Eick, A. G. Glaros, and D. M. Yourtee, "In Vitro Toxicity of Spiroorthocarbonate Monomers Designed for Non-Shrinking Restorative," *Journal of Biomaterials Science*, Polymer Edition, 11(2), 187-196 (2000).

Harris, C. D., A. J. Holder, J. D. Eick, and C. C. Chappelow, "AM1 Semiempirical Computational Analysis of the Homopolymerization of Spiroorthocarbonate," *Journal of Molecular Structure (Theochem)*, 507, 265-275 (2000).

Chappelow, C. C., C. S. Pinzino, L. Jeang, C. D. Harris, A. J. Holder, and J. D. Eick, "Photoreactivity of Expanding Monomers and Epoxy-Based Matrix Resin Systems," *Journal of Applied Polymer Science*, 76, 1715-1724, (2000).

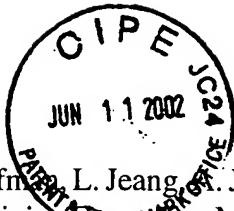
Eick, J. D., G. M. Kaufman, C. S. Pinzino, B. Morrison, and C. C. Chappelow, "New Prototype Epoxy-Based Low-Shrinkage/Low-Stress Composites," *Journal of Dental Research*, 79(SI), 148 (2000).

RECEIVED

JUN 18 2002

TECH CENTER 1600/2900

Sheet 2 of 2



Chappelow, C. C., C. S. Pinzino, G. M. Kaufman, L. Jeang, A. J. Holder, and J. D. Eick, "Photoreactivity of Epoxy-Based Matrix Resins and Composites Containing Expanding Monomers," *Journal of Dental Research*, 79(SI), 148 (2000).

Kostoryz, E. L., P. Y. Tong, C. C. Chappelow, A. G. Glaros, J. D. Eick, and D. M. Yourtee, "Good Biocompatibility Profile of Novel Spiroorthocarbonate Expanding Monomers," *Journal of Dental Research*, 79(SI), 316 (2000).

Holder, A. J., D. A. White, C. D. Harris, C. C. Chappelow, and J. D. Eick, "Computational Energetic and Mechanistic Study of Various Expanding Monomers," *Journal of Dental Research*, 78(SI), 288 (1999).

Chappelow, C. C., C. S. Pinzino, J. D. Oxman, S. S. Chen, and J. D. Eick, "Photopolymerizable Expanding Matrix Resin Systems for Low Stress Composites," *Journal of Dental Research*, 78(SI), 371 (1999).

Pinzino, C. S., C. C. Chappelow, J. D. Oxman, J. A. Morrill, M. D. Power, and J. D. Eick, "Experimental Photocurable Adhesive Formulations Containing Expanding Monomers and Reaction Promoters," *Journal of Dental Research*, 78(SI), 315 (1999).

Harris, C. D., A. J. Holder, C. C. Chappelow, and J. D. Eick, "Homopolymerization of Spiroorthocarbonate: A Computational Study," *Journal of Dental Research*, 77(SI), 154 (1998).

White, D. A., A. J. Holder, C. D. Harris, C. C. Chappelow, and J. D. Eick, "Computational Energetic and Mechanistic Study of Epoxide and Spiroorthocarbonate Polymerization," *Journal of Dental Research*, 77(SI), 154 (1998).

Chappelow, C. C., C. S. Pinzino, L. Jeang, C. D. Harris, A. J. Holder, and J. D. Eick, "Photoreactivity of Expanding Monomers in Dental Matrix Resins," *Journal of Dental Research*, 77(SI-B), 639 (1998).

Chappelow, C. C., C. S. Pinzino, C. D. Harris, A. J. Holder, and J. D. Eick, "Photoreactivity of Substituted 1,5,7,11-Tetraoxaspiro[5.5]undecane/Diepoxide/Polyol Matrix Resin Systems," *Journal of Dental Research*, 77(SI), 154 (1998).

Chappelow, C. C., C. S. Pinzino, M. D. Power, and J. D. Eick, "Photocured Epoxy/SOC Matrix Resin Systems for Dental Composites," *Polymer Preprints*, 38(2), 90 (1997).

Kostoryz, E. L., P. Y. Tong, R. R. Williams, J. D. Eick, C. C. Chappelow, and D. M. Yourtee, "Reduced Cytotoxicity of New Dental Resins Containing Spiroorthocarbonate/Epoxy Copolymers," *Journal of Dental Research*, 76(SI), 321 (1997).

Pinzino, C. S., C. C. Chappelow, M. D. Power, and J. D. Eick, "Visible Light Induced Polymerization Studies of SOCs and Monofunctional Epoxides," *Journal of Dental Research*, 76(SI), 41 (1997).

Chappelow, C. C., C. S. Pinzino, M. D. Power and J. D. Eick, "Photopolymerization of Epoxy/Polyol Mixtures Containing spiroorthocarbonates," *Journal of Dental Research*, 76(SI), 40 (1997).

Rose, L. A., P. Y. Tong, J. D. Eick, C. C. Chappelow, and D. M. Yourtee, "A Study of the Mutagenicity of Non-shrinking Spiroorthocarbonate Co-polymers," *Journal of Dental Research*, 75(SI), 329 (1996).



Murphy, J., R. P. Chappell, J. D. Eick, and C. C. Chappelow, "Spiroorthocarbonate Addition on Polymerization Shrinkage of Acrylate Systems," *Journal of Dental Research*, 74(SI), 182 (1995).

Chappelow, C. C., C. S. Pinzino, J. M. DeHaan, F. Millich, and J. D. Eick, "Synthesis and Photopolymerization of Substituted 1, 5, 7, 11-Tetraoxaspiro[5.5]undecanes," *Journal of Dental Research*, 74(SI), 492 (1995).

Eick, J. D., T. J. Byerley, R. P. Chappell, G. P. Chen, C. Q. Bowles, and C. C. Chappelow, "Properties of Expanding SOC/Epoxy copolymers for Dental Use," *Dental Materials*, 9, 123-127 (1993).

Byerley, T. J., J. D. Eick, G. P. Chen, C. C. Chappelow, and F. Millich, "Synthesis and Polymerization of New Expanding Dental Monomers," *Dental Materials*, 8, 345-350 (1992).

Chappelow, C. C., C. S. Pinzino, L. Jeang, C. D. Harris, A. J. Holder, and J. D. Eick, "Photoreactivity of Expanding Monomers and Epoxy-Based Matrix Resin Systems," *Journal of Applied Polymer Science*, 76, 1715-1724 (2000).

Holder, A. J., D. A. White, C. D. Harris, J. D. Eick, and C. C. Chappelow, "A Semiempirical Quantum Mechanical Study of the Cationic Homopolymerization of Expanding and Potentially Expanding Monomer Systems," *Journal of Molecular Structure (Theochem)*, 541, 159-169 (2001).

EXAMINER	DATE CONSIDERED
EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.	